



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,373	03/05/2002	Chang-Su Kim	INTV.014A	8244

4586 7590 12/21/2004

ROSENBERG, KLEIN & LEE
3458 ELLICOTT CENTER DRIVE-SUITE 101
ELLICOTT CITY, MD 21043

EXAMINER

AN, SHAWN S

ART UNIT PAPER NUMBER

2613

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,373

Applicant(s)

KIM ET AL.

Examiner

Shawn S An

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 22-34 is/are pending in the application.
- 4a) Of the above claim(s) 9-11 and 29-34 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☒ Claim(s) 22-24 and 26-28 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/7/02, 10/22/02
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Restriction/Election

1. Applicants' election without traverse of species II corresponding to claims 1-11 and 22-34 in the reply filed on 10/26/2004 is acknowledged. Furthermore, the Applicant has canceled the claims 12-21.

Note: claims 9-11 and 34 belong to Species III, corresponding to Fig. 8. Claims 29-33 belong to Species IV or VI, corresponding to Figs. 9 or 11, respectively. Therefore, since the Applicant elected Species II, the claims 9-11 and 29-34 have been considered as non-elected claims.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 22-24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haskell et al (6,233,356 B1) in view of Henry (5,436,664).

Regarding claim 22, Haskell et al discloses a video bitstream that carries a plurality of video frames including intra-coded frames and predictive-coded frames, the video bitstreams comprising:

A plurality of first packets that carry VOPs, where the plurality of packets include packets for I-VOPs and P-VOPs (col. 1, lines 60-66).

Haskell et al does not particularly disclose a plurality of second packets carrying at least one redundant motion vector corresponding to a P-VOP in the video bitstream.

Art Unit: 2613

However, Henry teaches utilizing redundant motion vector when a data packet is lost in order to replace each missing block with the portion of picture from which the motion vector has been obtained (col. 4, lines 1-5).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a video bitstream that carries a plurality of video frames as taught by Haskell et al to incorporate the conventional concept as discussed above as taught by Henry so that the plurality of second packets carries at least one redundant motion vector corresponding to the P-VOP in the video bitstream in order to replace the missing block with the portion of picture from which the motion vector has been obtained.

Regarding claim 23, Haskell et al discloses MPEG-4 (col. 1, lines 51-52). Further, the Examiner takes official notice that a user data packet is well known in the art in order to transmit/display additional information/data other than the video/audio data.

Therefore, it would have been obvious for the plurality of second packets comprising user data video packets carrying the redundant motion vector, which is in compliant with the MPEG-4 syntax.

Regarding claim 24, since the user data video packet carries the redundant motion vector corresponding to the P-VOP in the video bitstream, it would have been obvious for the user data video packet to follow the first packet corresponding to P-VOP in the bitstream.

Regarding claims 26-28, the Examiner takes official notice that a typical transport packet, such as in the MPEG 2/4 scheme, comprises header code (typically 16 bits) identifying data within the video packet, and the head extension code identifying that the packet header includes additional information (redundant motion vector).

Therefore, it would have been obvious for the user data packet to comprise header code (typically 16 bits) identifying data within the video packet, and the head extension code identifying that the packet header includes additional information such as the redundant motion vector.

Allowable Subject Matter

4. Claims 1-8 are allowed.
5. Claims 1-8 include the novel features comprising "... the VOP encoder to generate a redundant motion vector that is independent of the standard motion vector for the video object of the present frame, where the redundant motion vector reference motion to a portion of a frame that is prior to the frame referenced by the standard motion vector, where the VOP encoder embeds the redundant motion vector in a data packet, where an out-put of the VOP encoder is related to the robust coded bitstream.", wherein the art of records fail to anticipate or make obvious the novel features.
6. Claim 25 is objected to as being dependent upon a rejected base claim 22, but would be allowable: if claims 25 is rewritten in independent form including all of the limitations of the base claim 22 and any intervening claims.

Dependent claim 25 recites a novel feature, wherein the art of records fail to anticipate or make obvious the novel feature.

Accordingly, if the amendments are made to the claims listed above, and if rejected claims are canceled, the application would be placed in condition for allowance.

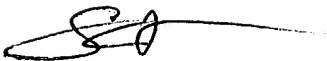
Conclusion

7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.
 - A) Chen et al (6,057,884), Temporal and spatial scalable coding for video object planes.
8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Shawn S An whose telephone number is 703-305-0099. The Examiner can normally be reached on Flex hours (10).

Art Unit: 2613

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



SSA

Primary Patent Examiner

12/17/04